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ATTEMPTS TO IMPROVE CATTLE BREEDS
IN THE UNITED STATES,
1790-1860

A PART OF A DISSERTATION SUBMITTED
TO THE FACULTY OF THE DIVISION OF
THE SOCIAL SCIENCES IN CANDIDACY FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF HISTORY

1931

By
CHARLES T. LEAVITT

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ATTEMPTS TO IMPROVE CATTLE BREEDS IN THE UNITED STATES, 1790-1860

CHARLES T. LEAVITT

Although many books and articles have been written on the improvement of livestock breeds in the United States, practically all of them have been in the nature of histories of the various improved breeds. The value of these histories has been further limited by the fact that they have been, in the main, written from the genealogical point of view, that is, the history of famous families within the breed. However significant this may be for the study of the improvement of breeds, this particular approach does not give an adequate picture of livestock improvement as a whole; nor is it presented in its proper proportions, particularly for the earlier periods of our country.

There were probably two fundamental factors necessary to any considerable improvement of livestock breeds in general, and of cattle in particular,—sufficiently high profits as brought about by speculative eras or good markets, and the development of so-called improved breeds. The influence of high prices on improvement is perhaps more evident in the case of cattle than in any other kind of livestock, due to the greater amount of capital needed in purchasing improved stock, and the longer time required to multiply their number. It is significant that the three periods of high beef prices from the War of 1812 to the Civil War,—1815 to 1819, 1834 to 1839, and during the fifties,—were the most important years for the importation of Shorthorns, the only breed of improved cattle imported in large numbers before the Civil War.

The story of the development, under the leadership of Robert Bakewell and others, of the various improved breeds of livestock which could pass on their improvements to their progeny with fair certainty, is too well known to repeat here. It only needs to be noted that England and Europe were ready to supply the United States with improved types just as soon as breeders found it remunerative to purchase them.¹

Other influences, besides the two fundamental ones already mentioned, prepared the way for improvement in livestock breeds or helped to advertise their importance. The widespread introduction of clover, in connection with gypsum, in the Middle States and New England during the generation after the Revolution, particularly from 1785 to 1810, was of great importance in improving the quality of their pastures and soils, and enabled them to provide the feed that improved breeds usually required.²

The development of county fairs, or, as they were often called, the cattle shows, enabled farmers to compare the quality of their cattle with that of their neighbors, and by appealing to their pride, encouraged them to have livestock of at least equally good quality.³ Elkanah Watson, a gentleman farmer, sponsored the first one at Pittsfield, Massachusetts, in 1807. Within a few years they had attracted widespread attention, spurred on by State bounties, and large numbers of them were to be found in nearly all the New England and Middle States, and had even penetrated into the South and West before 1820.⁴ For a period in the twen-

¹ Charles Sumner Plumb, *Types and Breeds of Farm Animals* (New York, 1906). Note the short history of the English or European background accompanying the discussion of each of the various breeds.

² Philadelphia Society for Promoting Agriculture, *Memoirs*, 1:161-166 (1815); Richard Peters, *Agricultural Enquiries on Plaister of Paris, passim* (Philadelphia, 1797); Society for the Promotion of Useful Arts, *Transactions*, 1:26 (New York, 1792); Society for Promoting Agriculture in Connecticut, *Transactions, passim* (New Haven, 1802); Timothy Dwight, *Travels in New England and New York*, 1:352 (New Haven, 1821).

³ Elkanah Watson, "History of Agricultural Societies on the Modern Berkshire System," in his *History of the Rise, Progress, and Existing Condition of the Western Canals in the State of New York*. . . , 159 (Albany, 1820).

⁴ Percy W. Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620-1860* (Carnegie Institution of Washington, Publication 358), 187-188 (Washington, D. C., 1925); Watson, *op. cit.*, 115-127, 148-162.

ties and thirties many of them became dormant, due to the withdrawal of State aid.⁵ Nevertheless, testimony was frequently given, even in this period, to the influence of these societies and fairs in securing improved livestock. William Renick stated that it was the "beautiful display at the county fairs [then recently revived], and elsewhere, of the many beautiful animals of the English improved Durhams" that led to the famous Ohio importations of Shorthorns in 1834.⁶ These fairs also aided in distributing improved breeds by serving as a common meeting place for buyers and sellers.⁷

The agricultural press was another factor of importance in developing an interest in better livestock. The first exclusively agricultural magazine, the *Agricultural Museum*, was published at Georgetown, D. C., during 1810-1812.⁸ In 1819 appeared the *American Farmer*, destined to be one of the best, as well as the first long-lived, agricultural magazines, lasting until the end of our period under various editors and titles. From 1819 to 1860, at least two hundred and fifty-nine agricultural magazines were started, sixty-four of which were published for five years or more.⁹ Four of these sixty-four magazines were begun before 1830, and twenty in each one of the next three decades.¹⁰ The circulation of many of them was probably quite small, though there is little data on which to base an estimate. However, in 1857, three of the New York agricultural magazines had a circulation of over twenty thousand each.¹¹ In any case they were an influence not to be ignored. Articles on the improvement of livestock, the

⁵ Bidwell and Falconer, *op. cit.*, 189.

⁶ United States Census Office, Eighth Census, 1860, *Agriculture of the United States in 1860*, cxxxiii.

⁷ *New York Farmer*, 5:51 (1832); 6:342 (1833).

⁸ See Claribel R. Barnett, "The Agricultural Museum; An Early American Agricultural Periodical," *Agricultural History*, 2:99-102 (April, 1928).

⁹ Based on the author's analysis of the card bibliography by Steven C. Stuntz of the American agricultural journals in the library of the United States Department of Agriculture, Washington, D. C.

¹⁰ The sixty-four were distributed as follows: New England, 12; Middle, South, and Northwest, 17 each; California, 1.

¹¹ Robert Russell, *North America, Its Agriculture and Climate*, 23 (Edinburgh, 1857); the journals were the *Country Gentleman*, the *Rural New Yorker*, and the *Genesee Farmer*.

merits of different breeds, and the weight or production records of the various improved stock, as contributed by the magazine editors, subscriber correspondents, and interested breeders, were of frequent occurrence.

A fourth factor which encouraged the cattle breeders to initiate improvements was the successful improvement in fine-wool sheep resulting from the importation of Merinos just before the War of 1812, the importation of improved swine breeds, and the development of our own improved swine showing what might be done with cattle.¹²

Shorthorns were the only improved beef breed to be imported on a large scale before 1860. However, before the fifties, they hardly existed in any part of the country except the Blue Grass Region of Kentucky and the Scioto Valley of Ohio in large enough numbers to implant their characteristics in many cattle. Therefore, most of such improving as was done was based on the native cattle breeds.

The farmers of New England, and particularly those of Rhode Island and the Connecticut Valley, with greater dependence on beef cattle for a cash income and better pastures than the regions to the south, had the best native cattle breeds prior to 1820, according to contemporary critics.¹³ The lack of any great profits in beef cattle raising and fattening after 1819 in New England probably deterred farmers from investing in "improved" breeds, but did not prevent them from gradually improving their native stock. In 1829 a Boston packer expressed the opinion that the quality of New England beef cattle had improved at least ten per cent during the previous decade.¹⁴ Other writers in the years

¹² Plumb, *op. cit.*, 381, 430-432, 438, 443, 474-475, 484-487, 497-498; Bidwell and Falconer, *op. cit.*, 217-220, 229-230, 440.

¹³ Rodolphus Dickinson, *Geographical and Statistical View of Massachusetts*, 11 (Greenfield, Mass., 1813); Duke [F. A. F. de] La Rochefoucauld-Liancourt, *Travels through the United States of North America, in the years 1795, 1796, and 1797*, translated by H. Neuman, 1:399 (London, 1799); Andrew Burnaby, *Travels through the Middle Settlements in North America*, edited by R. R. Wilson, 123 (New York, 1904).

¹⁴ *New England Farmer*, 8:92 (1829).

before 1840 thought that the improvement had been considerable although not as striking as with swine or sheep.¹⁵

The Middle States farmers were satisfied with rather scrubby cattle prior to the War of 1812, their interest being grain.¹⁶ The incentive to engage in beef cattle raising after the war increased only slightly and up to 1840, observers failed to see any improvement save in limited districts in southwestern New York.¹⁷ Quite likely, however, the standards of these commentators had been raised; and their remarks were perhaps made in implied comparison with the improved cattle of the Kentucky Blue Grass and the Scioto Valley of Ohio which were then beginning to appear in Eastern markets.

Hardy scrubs were the only kind that could survive the treatment that cattle received in the Southern tobacco, rice, and cotton belts.¹⁸ However, the farmers of the Virginia Piedmont and the Shenandoah Valley were getting better breeds as beef cattle fattening became more important.¹⁹ On the advancing frontier of the Northwest, a type of cattle not dissimilar to those in the South was needed: "His kine are such as can pick their livelihood from the brush, or if they have a prairie to graze upon and they stray away, such as a year's labour and produce of his farm will not be required to replace. . . ."²⁰ As the frontier receded westward, two general kinds of native cattle appeared, suitable to two different types of regions. "In the more hilly and timbered localities, the cattle were smaller, of compact build, hardy, healthy, and easily fattened; whereas in the more open portion of the coun-

¹⁵ *Massachusetts Agricultural Repository and Journal*, 10:212 (1831); Massachusetts Board of Agriculture, *Fourth Report on Agriculture of Massachusetts*, 1841:302; *American Farmer* (n.s.), 2:236 (1840).

¹⁶ *American Husbandry*, 1:231 (London, 1775); *American Farmer*, 1:99 (1819); La Rochefoucauld-Liancourt, *op. cit.*, 2:23.

¹⁷ *Plough Boy*, 3:1 (1822); New York Board of Agriculture, *Memoirs*, 2:448 (1823); *Genesee Farmer*, 2:316 (1832); *New England Farmer*, 6:109 (1827).

¹⁸ *American Agriculturist*, 5:248 (1846); Virginia Board of Agriculture, *Report*, 11 (Richmond, 1842); *Genesee Farmer* (n.s.), 9:166 (1848).

¹⁹ *Southern Planter*, 3:8 (1843).

²⁰ *Franklin Farmer*, 2:380 (1840). See also the Ohio State Board of Agriculture, *Annual Report*, 5:326 (1850).

try, where the feed was abundant, the stock became larger, looser made, coarser, more subject to disease, and harder to fatten; . . ."²¹ As the population increased and marketing conditions improved, more attention was given to the quality of the native stock. In 1830, the victuallers of Cincinnati claimed that, as a result of their efforts,—“by dint of honorable competition, exciting emulation among the farmers,”—they had greatly bettered the quality of cattle which were brought to their market during the previous fifteen to twenty years.²²

From such statistics as the writer has been able to secure, it has seemed impossible to compare the weights of the average cattle in the different sections and periods, due to the different bases of net and live weight used. In both the East and the West, however, the general tendency during the forties and fifties was to shorten the life of beef cattle from the usual five to seven years; this, in many cases, indicated that cattle were able to mature more rapidly.²³

A number of influences made the process of improving beef cattle rather slow. The most common complaint was that farmers sold their best stock to the butcher, and used their poorest for breeding.²⁴ These farmers were probably the ones who sent their good cows “to the nearest scrub bull, to save a little labour, and some trifling difference of expence.”²⁵ In districts where feed was sparse, particularly in the South, the better breeds degenerated when given the food that was fed to native cattle,²⁶ and unless the means of feeding could be bettered, they found it wiser to keep the latter. Occasionally the complaint was made

²¹ Census of 1860, *op. cit.*, cxxxiii. See also the *Farmer's Chronicle*, 1:230 (1868); *Monthly Journal of Agriculture*, 1:581 (1846).

²² *Cincinnati Advertiser and Ohio Phoenix*, May 22, 1830, p. 3.

²³ *Monthly Journal of Agriculture*, 3:163 (1847); *New England Farmer*, 24:148 (1845); Massachusetts Board of Agriculture, *Fourth Report on Agriculture of Massachusetts*, 89.

²⁴ *New Hampshire Repository*, 60 (Concord, 1822); *Plough Boy*, 1:291 (1819-20); *New England Farmer*, 19:331 (1841).

²⁵ *Massachusetts Agricultural Repository*, 7:240-241 (1822-23). See also the *Genesee Farmer*, 6:156 (1836).

²⁶ *American Farmer*, 10:273 (1828); 11:130 (1829); *Southern Agriculturist* (n.s.), 2:521 (1842).

that the small size of the premium received in the local market for better quality of beef, made it unprofitable to give the extra feeding necessary to secure and maintain better breeds.²⁷

The Southern and Western farmers also had other problems. In the South it was difficult to acclimatize many of the improved breeds of cattle, and severe losses had to be taken as a result.²⁸ In the prairies of the Northwest, trouble was experienced with inferior bulls running at large and interfering with efficient control over breeding. The large stock farmers of Illinois tried to secure a law against bulls running at large, but the small farmer said that the law would favor only the rich, and it was defeated.²⁹ The practice of allowing cattle to run at large also brought in its train the custom of keeping all calves, whether good or bad, as bait to bring the cows home every night for milking.³⁰

When the more progressive cattle raisers became interested in improving their stock, they naturally turned to England where better breeds had been developed. Farmers of the United States, particularly in New England, asserted that American farmers should develop their own breeds. A Vermonter of 1825 wrote: "It is very obvious that it is to the peculiar mode of breeding and keeping their neat cattle, (the imported breeds) that we are to attribute their superiority, rather than to any excellence peculiar to their origin. Were the same money which is paid to the speculator for his imported cattle, expended in the nurture, and better keeping, and managing our own native breed, we would probably by that means, make it equal to theirs, with a greater saving of expense."³¹ The answer to this argument had already been made by a fellow New Englander the previous year: "But who are our capitalists that will select and take due care of them? Where

²⁷ *American Farmer*, 11:108 (1829).

²⁸ *Southern Cultivator*, 3:121 (1845); *Rural Register*, 1:270 (1860).

²⁹ Theodore C. Pease, "The Frontier State, 1818-1848," *The Centennial History of Illinois*, 2:385 (Chicago, 1922). See also William Oliver, *Eight Months in Illinois*, 102 (Chicago, 1924), and *Northwestern Farmer*, 5:249 (1860).

³⁰ J. M. Peck, *A Guide for Emigrants*, 166 (Boston, 1831).

³¹ Leonard E. Lathrop, *The Farmer's Library*, 148 (2d ed. Windsor, Vt., 1826). See also the *New England Farmer*, 4:81 (1825); *Plough Boy*, 3:32 (1821); *Union Agriculturist*, 1:91 (1841).

is the man who has so cautiously guarded the progeny of a fine cow? and if he did, unless he could raise her bull calves as husbands, how can he hope to keep the race pure.”³²

The first importation of English cattle for the purpose of improving the American stock, of which we have record, was made in 1783 by a Mr. Miller of Virginia and a Mr. Gough of Baltimore. The descendants of these cattle passed principally to farmers in the Shenandoah Valley and along the South Branch of the Potomac, where beef cattle fattening was becoming important.³³

Matthew Patton, Sr., a farmer on the South Branch of the Potomac, and his sons took some of these cattle to Kentucky just prior to 1790, where they were said to have brought about a great improvement in the character of the cattle of that State.³⁴

The Kentucky Blue Grass graziers, with their rich pastures and fertile soils for growing corn, were the leaders in the importation of the “improved” English breeds. The Patton importations probably demonstrated the value of better breeds, while the produce of their fertile Blue Grass soils gave them the capital to invest in the improved breeds, and the rich feed to make them profitable. Hearing of the high prices being received in England for “improved” Shorthorns, Colonel Lewis Sanders of this region imported eight improved Shorthorns and four improved Longhorns about 1817.³⁵ The rapidity with which this blood was spread is indicated by the fact that in 1822 one farmer of Lexington, Kentucky, had two hundred offspring from two of the imported Shorthorn bulls.³⁶ The Longhorns proved much less valuable, and they soon disappeared.³⁷

Although the West secured Shorthorns in 1817, it allowed fifteen years to elapse before making further additions from the

³² *New England Farmer*, 3:401 (1825).

³³ Alvin Howard Sanders, *Shorthorn Cattle*, 158 (Chicago, 1918).

³⁴ Alvin Howard Sanders, *The Story of the Herefords*, 258 ff. (Chicago, 1914); *American Farmer*, 2:313 (1820); *Southern Planter*, 10:20 (1850).

³⁵ Sanders, *Shorthorn Cattle*, 166.

³⁶ *American Farmer*, 4:280 (1822). See also Census of 1860, *op. cit.*, cxxxii; Sanders, *op. cit.*, 168-169.

³⁷ *Ibid.*, 171.

outside. In the meantime, a considerable number were brought into New England and the Middle States during the twenties.³⁸ The first important Shorthorn herd in the East was established between 1822 and 1831 by Colonel Powell near Philadelphia by the importation of twenty-four cows and seven bulls.³⁹

The high beef prices of the middle thirties sent breeders in even greater numbers to England to secure the best of English cattle.⁴⁰ In Ohio the first of the cattle importing companies was formed by fifty Ohio graziers in 1834. Their sale of sixty Shorthorns, bought by their representatives, gave them a 400 per cent profit, and led to a wave of speculation in Kentucky and Ohio which resulted in the shipment of a large number of this breed from England.⁴¹ Likewise high beef prices during the fifties caused active buying both from abroad and at home. In this movement the numerous county importing associations of Ohio, Kentucky, and Illinois played an important part, although individual Eastern breeders also secured many Shorthorns from England.⁴²

The Shorthorns were not equally well adapted to all sections. Few New England farmers found them to their liking. The universal objection was that they made poor oxen; they were too large, too inactive, too small boned, and their uneven color made it difficult to match them for the yoke.⁴³ New Englanders felt that their infertile soils would not support such a rich-feeding animal;⁴⁴ and they were quite sure that their native stock was better for the dairy and furnished a better quality of beef.⁴⁵ The

³⁸ *Ibid.*, 172-173, 175.

³⁹ *Ibid.*, 176-177. *The American Farmer*, 10:55 (1828), says that he had imported eleven bulls and seventeen cows to that date.

⁴⁰ For the Eastern importations, see Sanders, *op. cit.*, 223.

⁴¹ Census of 1860, *op. cit.*, cxxxi; Sanders, *op. cit.*, 178 ff. On profit see *ibid.*, 197-200; Charles Sumner Plumb, "Felix Renick, Pioneer," *Ohio Archaeological and Historical Quarterly*, 33:35-36 (January, 1924).

⁴² Sanders, *op. cit.*, 228-265.

⁴³ *New England Farmer*, 4:74, 90, 166 (1825); *American Farmer*, 15:349, 380 (1834).

⁴⁴ *American Farmer*, 15:380 (1834); Essex Agricultural Society, *Transactions* (1839), appendix, 27-28; Massachusetts Agricultural Society, *Transactions*, 1851: 509.

⁴⁵ *New England Farmer*, 4:74, 91, 166 (1825); *American Farmer*, 15:380 (1834).

Genesee wheat farmers, and the hill farmers of southern New York took the New England point of view.⁴⁶ However, the farmers with better pastures appreciated the aptitude of the Shorthorns to take on beef and also the large quantities of milk that they gave.⁴⁷

The Southern pastures were not suited to the rich-feeding Shorthorn, nor was the climate agreeable to their constitutions.⁴⁸ Still, some herds were found in the South.⁴⁹ The Shorthorn was naturally best suited to the rich soils of the Ohio and northern Mississippi valleys. Farmers just emerging from the frontier stage, unaccustomed to keeping good pastures and supplying sufficient shelter, frequently failed because improved cattle called for improved attention.⁵⁰

The Shorthorn herd books, beginning in 1846, give partial data on the increase of Shorthorn cattle.⁵¹ In the four herd books issued prior to May, 1859, 3,717 bulls, and 6,290 cows were entered.⁵² The following analysis of the distribution of the bulls entered has been made by sections and by chronological periods: For the period to 1839 the data are,—New England, 6; Middle States, 50; South, 1; Ohio-Kentucky, 98; Northwest (except Ohio), 1; total, 156. For 1840-51,—New England, 37; Middle States, 179; South, 15; Ohio-Kentucky, 448; Northwest (except Ohio), 38; total, 717. For 1852-May, 1859,—New England, 186; Middle States, 475; South, 89; Ohio-Kentucky, 1,252; Northwest (except Ohio), 503; Pacific Coast, 6; total, 2,472. The totals for 1839-

⁴⁶ *American Farmer*, 15:38, 257, 371 (1833-34); *Genesee Farmer*, 1:52 (1831).

⁴⁷ New York Board of Agriculture, *Memoirs*, 3:3-6, 448 (1826); *Genesee Farmer*, 1:390 (1831); *New England Farmer*, 16:297-298 (1838).

⁴⁸ *Southern Agriculturist* (n.s.), 3:397 (1843); *South Western Farmer*, 1:187 (1843).

⁴⁹ *Farmer and Planter*, 2:13 (1852); *Agriculturist*, 4:25 (1843).

⁵⁰ On lack of feed, see the *Genesee Farmer*, 9:194 (1839); *Agriculturist*, 3:283-284 (1842); *Ohio Cultivator*, 14:339 (1858). On poor shelter, see the *Southern Planter*, 10:22 (1850); *Union Agriculturist*, 2:26 (1842); Pease, *op. cit.*, 385.

⁵¹ Only the cows and bulls which were used for breeding purposes were entered; it is difficult to say just what proportion of the entire number they were. Lewis F. Allen, editor, *Herd Book, Containing Pedigrees of Shorthorn Cattle* (Buffalo, 1846).

⁵² *American Shorthorn Herd Book*, v. 1; v. 2 (1st ed. 1855; 2d ed. 1877); v. 3 (1st ed. 1857; 2d ed. 1884 used); v. 4 (1859).

1859 are: New England, 229; Middle States, 704; South, 105; Ohio-Kentucky, 1,798; Northwest (except Ohio), 503; Pacific Coast, 6; grand total, 3,345.⁵³

Analysis of the distribution of these Shorthorn bulls by counties through 1856 shows several interesting facts. Five small counties of the Blue Grass Region of Kentucky possessed 22.7 per cent of the Shorthorn bulls, imported, born, or bought in the United States in the years 1852-1856.⁵⁴ Bourbon County, alone, possessed 10.3 per cent of the total. On the other hand, almost all of the Shorthorn bulls in Kentucky were in seventeen small counties centering in the Blue Grass Region.⁵⁵ Six counties in south-central Ohio, on or west of the Scioto River, had 16.4 per cent of the total in the United States for the period 1852-1856,⁵⁶ and most of the rest of the Shorthorn bulls in Ohio were in the southwestern part of the State between the Scioto and Great Miami rivers. However, several of the counties in the Western Reserve dairy district had a considerable number. The scattered holdings west of Ohio and Kentucky were all in the glaciated sections, with such concentration as existed being in central Indiana and west-central Illinois.

Outside of the Northwest, Shorthorns were mainly in dairy districts, as in the communities bordering the Erie Canal in central New York, the counties just east of the Hudson River, the Connecticut Valley and the areas adjacent to the larger cities such as Boston, New York, and Philadelphia.

⁵³ The total in this analysis is not quite so great as the one in the first total, as those in Canada and those whose location was uncertain were omitted. In order to show the distribution more adequately the location of the last owner of the record was used. The date taken was that of importation, the date of birth if in the United States and unsold, or the date of sale. If the latter was not given, it was estimated as two years after the date of birth. Between 10 and 20 per cent of the dates of birth were not given, and these were estimated. The *Sixth Herd Book* was also used to locate those born before May, 1859. See v. 6 (1st ed. 1863; 2d ed. 1882).

⁵⁴ Bourbon, Fayette, Mercer, Scott, and Clark, in the order of then number held.

⁵⁵ Bourbon, Boyle, Casey, Clark, Fayette, Franklin, Garrard, Harrison, Jassamine, Lincoln, Mercer, Nicholas, Montgomery, Scott, Shelby, Washington, Woodford.

⁵⁶ Clark, Clinton, Madison, Pickaway, Ross, Warren.

Although the total number of bulls entered in the herd books to May, 1859, was less than 0.4 per cent of the 8,035,695 non-dairy cattle in the eastern and northwestern States in 1860, they were more important than might seem at first glance. While a pure-blooded Shorthorn was much better than a half-grade or a fourth-grade, a small infusion of Shorthorn blood would greatly improve the quality of the native cattle. As one Ohio writer said in 1849: ". . . every day's experience but confirms the opinion of the intelligent breeder and feeder, that an admixture of the pure blood of these fine stock, to the extent of one-half, or even one-fourth, with the common stock, greatly enhances their value; for it is confidently asserted that at the same age, with the same care and attention and feed, they are worth for stock or feed cattle from twenty to fifty per cent more than the common cattle of the country, and at the same time command a readier market."⁵⁷ Secondly, a pure-blooded bull could serve a large number of native cows in a season. There are records of certain well-known Devon and Shorthorn bulls serving from seventy to three hundred cows in a year,⁵⁸ though it was generally considered better for a bull not to serve more than fifty cows.⁵⁹

If the bulls listed in the herd books were instrumental in producing thirty calves yearly for half of the years in which they were listed, the following would be the result: for 1820-29,—23 bulls and 3,450 calves; for 1830-39,—133 bulls and 19,950 calves; 1840-51,—717 bulls and 129,060 calves; 1852-59,—2,472 bulls and 296,640 calves. If the 129,060 half-grade Shorthorns born between 1840 and 1851 were one half males, we could reasonably estimate that one-fifth of the males, or 12,906 bulls, were used for breeding purposes. If they produced fifteen calves for each of the eight years during which they were available for breeding purposes they would have produced 774,360 one-fourth grade Shorthorn cattle.⁶⁰ Thus while the increase in the number of pure-blooded Shorthorns was rather slow, being limited by the

⁵⁷ Ohio State Board of Agriculture, *Annual Report*, 4:10 (1849).

⁵⁸ *New England Farmer*, 4:397 (1826); *Southern Planter*, 14:338-339 (1854).

⁵⁹ *Franklin Farmer*, 1:306 (1838); *Cultivator*, 5:24 (1838).

⁶⁰ Only eight years available if not used until three years old. See the *Cultivator*, 5:24 (1838).

number of pure-blooded cows, the process of giving a strong infusion of Shorthorn blood to the native cattle could be done more rapidly. For this reason, we can read without skepticism the numerous reports from Ohio and Indiana counties in the late forties and fifties of the great improvement that was being made in their cattle due to the infusion of Shorthorn blood.⁶¹

The only other "improved" beef breeds imported prior to 1860 were Devons and Herefords, and neither came in large numbers. The first large, improved Devon importation occurred in 1817 and consisted of six two-year old heifers and a bull, a gift from Coke of England to Robert Patterson of Baltimore.⁶² Perhaps a half-dozen small importations were made before 1860, but no enthusiasm for this breed developed.⁶³ New England farmers, who had the unimproved Devon, admired, and would, no doubt, have imported more of the improved type, if their beef cattle industry had not been on the decline. They found that the Devons were well suited to the plough, and that they gave a good quality of beef, did well on poor lands, and their milk yields had a high butter fat content.⁶⁴ Farmers in such widely separated areas as Michigan and the South, unable to support the rich-feeding Shorthorn, likewise looked approvingly at the Devon.⁶⁵ In most places their small size and their small yield of milk brought disapproval.⁶⁶

Although there were some Hereford importations, particularly after 1840, they were even less popular than the Devons.⁶⁷ The Herefords had a good quality of meat and matured quickly;⁶⁸ but

⁶¹ Ohio State Board of Agriculture, *Annual Report*, 2:74 (1847); 4:10, 99, 158 (1849); 6:223, 476 (1851); 8:581, 594, 598, 604, 615, 643, 657, 670 (1853); Indiana State Board of Agriculture, *Report*, 6:563, 565, 567, 578 (1857).

⁶² Plumb, *Types and Breeds of Farm Animals*, 321.

⁶³ *Loc. cit.*; *New England Farmer*, 24:118; *Genesee Farmer*, 7:232 (1846).

⁶⁴ *Genesee Farmer*, 1:52 (1831); *American Farmer*, 15:257 (1833); *New England Farmer*, 4:91 (1825); 16:298 (1838).

⁶⁵ *Southern Planter*, 13:14-15 (1853); *American Farmer* (n.s.), 2:220 (1840); Michigan Agricultural Society, *Transactions*, 3:132-136 (1852).

⁶⁶ See references in footnote 65.

⁶⁷ For importations, see Plumb, *op. cit.*, 205; Sanders, *The Story of the Herefords*, 279-299 (Chicago, 1914).

⁶⁸ Charles W. Burkett, *Farm Stock*, 120 (New York, 1909); *New England Farmer*, 20:290 (1842); 23:352 (1845).

they were poor milkers,⁶⁹ and it was doubtful whether on good pastures, and with plenty of corn, the steers could do as well as Shorthorns.⁷⁰

The development in dairy breeds, even more than beef cattle, was dependent on the improvement of the native dairy cattle in this period. The Shorthorn was the only breed imported in large numbers which had improved dairy qualities; and these were by no means as outstanding as their beef qualities. The greatest improvement in dairy cattle had been in New England and the Middle States, as indicated by the 1860 census report on the production of butter and cheese per cow. The following data give an idea of the relative qualities of the dairy cattle of the different sections: New England, 75 pounds of butter, 32 of cheese; Middle States, 87 pounds of butter, 25 of cheese; South, 22 pounds of butter, 5/16 of cheese; West, 58 pounds of butter, 10 of cheese; Pacific Coast, 15 pounds of butter, 5 of cheese. Probably these data are not quite fair to the beef cattle regions of the West where cows were kept mainly for breeding purposes.⁷¹

Most of the influences working against the improvement of beef cattle also applied to dairy breeds. An additional factor applying solely to dairy cattle was the practice in most of the important dairy districts of importing cows from other areas rather than raising them.⁷² As long as this was done, farmers could not expect to build up good herds.⁷³ There was, in fact, much ignorance among farmers as to the qualities to be sought in a good dairy cow. A writer of an agricultural treatise in 1818 gravely stated: "The size of Cows is not so material: as it is found that all cattle eat nearly in proportion to their respective sizes. What would be necessary to feed one of the large Lancashire breed of Cows,

⁶⁹ *Ibid.*, 19:186 (1840); *Wisconsin Farmer*, 9:285-286 (1857).

⁷⁰ Plumb, *op. cit.*, 194; Burkett, *op. cit.*, 116-117.

⁷¹ Census of 1860, *op. cit.*, cxix.

⁷² Massachusetts Board of Agriculture, *Annual Report*, 1857:250; 1859:200; New York State Agricultural Society, *Transactions*, 1841:137; Patent Office *Report*, 1848:449; 1849:127; Michigan Agricultural Society, *Transactions*, 6:215-216 (1854).

⁷³ Massachusetts Agricultural Society, *Transactions*, 1849:181; Massachusetts Board of Agriculture, *Report*, 1859:200.

would be nearly sufficient for two of the alderney breed. . .while the milk of the two would probably nearly double that of the former.”⁷⁴

Even when farmers had a better knowledge of these qualities, it was a question as to whether it were better to develop their native cattle, or turn to Shorthorns. Though many believed that it was possible to develop a breed having both beef and dairy qualities, others were becoming somewhat skeptical.⁷⁵ The average farmer in the various dairy districts of New England, central New York, southeastern Pennsylvania, and the Western Reserve of Ohio held that, as between Shorthorns and natives, the latter were best for dairy purposes.⁷⁶

In Massachusetts an enterprising dairyman crossed the Short-horn on native stock to develop what was called the Cream Pot breed. For a time this breed had an excellent reputation for dairy purposes.⁷⁷ One Massachusetts writer pointed out, however, that although many native cows gave very high yields, evidence was almost totally lacking to show that they gave birth to calves who in their turn yielded record amounts.⁷⁸ In other words, native cattle lacked the most important attribute of all improved breeds, the transmission with fair certainty of their own improved characteristics to their progeny. Given time and money, the characteristics of improved breeds might be developed in American dairy stock, but the question was asked: what use would there be in doing it when “we may find the work already done to our own hands?”⁷⁹

Very few of the present important dairy breeds, the Holstein,

⁷⁴ John Nicholson, *The Farmer's Assistant*, 240 (2d ed. Philadelphia, 1820).

⁷⁵ Anti: *American Farmer*, 13:137-138 (1831); New York Board of Agriculture, *Memoirs*, 1821:279; Pennsylvania Agricultural Society, *Memoirs*, 1824: 46, 48; *Genesee Farmer* (n.s.), 10:142 (1849). Pro: Pennsylvania Agricultural Society, *Memoirs*, 1824: 24-25; *Southern Planter*, 20:158 (1860).

⁷⁶ New England,—*New England Farmer*, 3:306 (1825); New York,—*Country Gentleman*, 9:60 (1857); Pennsylvania,—*Patent Office Report*, 1848:449; Ohio,—Ohio State Board of Agriculture, *Annual Report*, 3:32 (1848); 4:41 (1849); 8:515, 520, 529, 553, 562, 573, 584 (1853).

⁷⁷ *Second Report on the Agriculture of Massachusetts*, 1838:66, 68.

⁷⁸ *New England Farmer*, 24:280 (1846).

⁷⁹ *Loc. cit.*

Jersey, Guernsey, and Ayrshire, were imported prior to 1860, though there were scattered importations of all of them throughout the period.⁸⁰ The Holsteins were disliked because of the low butter fat content of their milk, as butter and cheese were then the chief product of the farmer.⁸¹ Although the Jerseys and Guernseys were noted for the butter fat content of their milk, they were too small for the Eastern farmer of this period who wanted a combined beef and dairy breed.⁸² Ayrshires more adequately filled the need of a breed with a good yield of milk and butter; they were of fair size and were able to subsist on short herbage.⁸³ During the thirties and forties a number of them were imported in the East, and even in the South.⁸⁴

The stage of improvement in cattle breeds reached by 1860 may be summarized as follows: Practically all farmers of the East and Northwest had become convinced of the necessity of improving their beef and dairy breeds; and most of the beef cattle raisers believed that the imported "improved" breeds were the best for this purpose. If their feed supply were adequate, they waited until their capital and financial returns were sufficient to justify the investment. Dairymen were not so certain of the superiority of imported dairy breeds. Some were prejudiced, and others desired an all-purpose breed which excelled in beef, quantity of milk, and amount of butter fat. It was not until after the Civil War that they began to appreciate Holsteins, Jerseys, Guernseys, and Ayrshires with their more specialized characteristics. In the North and West, native beef cattle breeds were greatly improved over the colonial or frontier type. In the East, the same

⁸⁰ For imports of Holsteins, see the *American Farmer*, 4:122 (1822); *Holstein Herd-Book*, 1:17-18 (Davenport, Iowa, 1885). For Jerseys, see Plumb, *op. cit.*, 277; John S. Linsley, *Jersey Cattle in America*, 485-488 (New York, 1885). For Guernseys, see Charles L. Hill, *The Guernsey Breed*, 104-105 (Waterloo, Iowa, 1917).

⁸¹ *New England Farmer*, 16:298 (1838).

⁸² *American Farmer*, 2:79 (1820); 12:171 (1830); *Wisconsin Farmer*, 9:196 (1857).

⁸³ *New England Farmer*, 20:225 (1842); Burkett, *op. cit.*, 133-137.

⁸⁴ Plumb, *op. cit.*, 289; *Fourth Annual Report of the Agriculture of Massachusetts*, 259-261; *New England Farmer*, 24:178 (1845); *Genesee Farmer*, 7:232 (1846); *American Farmer*, 13:405 (1832); *Farmer and Gardener*, 4:185 (1837); *Agriculturist*, 1:79 (1840).

was true of the native dairy breeds. The Shorthorns were the only beef or dairy cattle breed to be imported in sufficient numbers to have any large influence on improving cattle breeds, and much of this influence was concentrated in Ohio and Kentucky. Experiments, however, had been made with practically all of the important beef and dairy breeds, so that the conditions to which they were best fitted in the United States were well known.

